

Culinary Arts Foundations: Week 2

Day 1: Sanitation Challenges-ch. 7.2 Pg. 166-173

- **Objective:** Review possible injuries and safety tips. Determine the “Big 5” and sanitation challenges.
- **Starter #4:** What do microorganisms need to grow?
FAT TOM (Food, Acidity, Time, Temperature, Oxygen, Moisture)
- **Assignments:**
 - Complete posters if not completed.
 - Present Safety Prevention Poster
 - Notes: Sanitation Challenges-Ch.7.2 Pg. 166-173

Day 2: The HACCP System- Ch. 8.2 Pg. 182-187

- **Objective:** Explain the purpose of the HACCP system and determine its use.
- **Starter #5:** What is Hepatitis A? How is it transmitted and how can it be prevented? (pg. 169)
- **Assignments:**
 - Complete Sanitation Challenges Notes
 - The HACCP System Study Guide pg. 182-187

Day 3: USDA/HACCP

- **Objective:** Identify food recalls and bacteria/viruses involved. Become familiar with HACCP and HACCP regulations by searching the website.
- **NO Starter**
- **Assignment:**
 - Food Recalls/ HACCP Guidelines worksheet—Students will utilize the computer lab and government websites to complete the worksheet.

Day 4: Flow of Food- ch. 8.3 Pg. 187-195

- **Objective:** Identify steps in the flow of food and potential hazards.
- **Starter #6:** What does HACCP stand for?
- **Assignment:**
 - Power Point Notes: Flow of Food

Day 5: Flow of Food- ch. 8.3 Pg. 187-195

- **Objective:** Identify steps in the flow of food and potential hazards.
- **Starter #7:** List 2 potential hazards when storing food. (chart pg. 184)
- **Assignment:**
 - Complete Power Point Notes: Flow of Food
 - Start Crossword Puzzle ch.7 Safety and Sanitation Principles and Ch.8 HACCP Applications

Sanitation Challenges

A. What is Contamination?

- 1.) when harmful organisms or substances are present in food
- 2.) food that is unfit to be eaten
- 3.) eating contaminated food can make you sick→death

B.) Contamination can happen in 2 ways: Direct Contamination vs. Cross-Contamination :

- 1.) Direct Contamination: occurs when raw foods, or the plants or animals from which they come from, are exposed to toxins. Toxins: harmful organisms or substances

Example: toxins in the soil could contaminate the plant growing and therefore contaminate the products produced from the plant.

- 2.) Cross-Contamination: the movement of chemicals or microorganisms from one place to another. The most common mode of cross contamination = people

C.) Sanitation: healthy or clean and whole

- 1.) Federal, state, and local departments have established sanitation and food handling regulations
- 2.) workers need to be aware of the types of food hazards (sources of danger) that can occur
 - Biological
 - Chemical
 - Physical

D. Biological Hazards: come from microorganisms (bacteria, viruses, parasites and fungi)

1.) Foodborne Illness

a.) Caused by:

- food handled improperly
- cross-contamination
- poor personal hygiene
- food handler illness

b.) children, elderly, pregnant woman, chronic illness or persons with weekend immune systems are most at risk for getting a FBI

D. Biological Hazards Cont.

2.) Bacteria: tiny single-celled microorganisms

- a.) symptoms include: nausea, abdominal pain, and vomiting
- b.) Multiply rapidly and thrive between 41-135°F
- c.) Do not need oxygen to grow and prefer foods that are high in protein and moisture (milk, meats, and seafood)

D. Biological Hazards Cont.

3.) Viruses

- a.) need a host or living cell to grow (person, plant, or animal)
- b.) Like bacteria they can survive freezing and cooking
- c.) easily transmitted from person to person (poor hygiene)
- d.) salads, sandwiches, milk and other unheated foods

D. Biological Hazards Cont.

4.) Parasites

- a.) larger than bacteria and viruses
- b.) must live in or on a host to survive
- c.) found in poultry, fish and meats
- d.) Include:
 - 1.) protozoa
 - 2.) roundworms
 - 3.) flatworms
- e.) can be eliminated by freezing and using proper cooking methods and temperatures

D. Biological Hazards Cont.

- 5.) Fungi: found in soil, plants, animals water and the air
- 6.) Molds: form of fungus that can grow at nearly and temperature
- 7.) Yeast: form of fungus
 - a.) beneficial in the making of bread and the baking process
 - b.) when present in other foods such as honey and jelly it can cause spoilage

E. Chemical Hazards

- 1.) Cleaning Products: detergents, hygiene detergents, degreasers, abrasive cleaners, acid cleaners
 - a.) never store near food
 - b.) keep in original containers
 - c.) containers should be labeled clearly with contents
 - d.) disposed of according to local regulations
- 2.) Pesticides: same guidelines and cleaning products

F.) THE BIG FIVE

(use chart on pg. 167 to complete)

Illness & Cause	Symptoms	Foods Involved
Salmonellosis-Bacteria		
Hepatitis A-Virus		
Norwalk Virus		
Shigellosis-Bacteria		
E. Coli-Bacteria		

G.) Responding to an Outbreak:

- 1.) happens when people become sick after eating the same food
- 2.) if you suspect an outbreak
 - Inform manager/supervisor immediately
 - avoid panic/ let authorities investigate
 - wrap suspected food in plastic bags-label
 - DO NOT USE!**
 - report any information to supervisor who is responsible for contacting the appropriate authorities
- 3.) must be reported to Department of Health

Name _____ Date _____ Period _____

The HACCP System
Study Guide pg. 182-187

1.) What is HACCP?

2.) What four ways does HACCP help foodservice employees?

a.) _____

b.) _____

c.) _____

d.) _____

3.) What is the first step of HACCP?

4.) List four of the eight most frequent found hazards.

a.) _____

b.) _____

c.) _____

d.) _____

5.) What is a critical control point?

6.) According to the U.S. Centers for Disease Control, what is the most common cause of all reported foodborne illness?

7.) What are two important measurements that impact food safety?

8.) When you cook food to the highest temperature, what are you doing to the bacteria?

9.) The temperature danger zone is _____ to _____.

10.) Foods must be thrown away after _____ if they are not held at or above _____.

11.) When measuring the internal temperature of food where should the thermometer be placed and how many readings should you take?

12.) Fresh foods should be received at a temperature of _____ or _____.

13.) What does calibrated mean?

14.) What are foodservice workers responsible for?

15.) What four things do record keeping systems include?

a.) _____

b.) _____

c.) _____

d.) _____

Name _____ Date _____ Period _____

**USDA
HACCP**

Directions: Go to the following website and answer the questions that follow.

1.) Go to www.usda.gov. Click on find current food recalls. Choose a food recall and summarize below.

2.) Go to <http://www.cfsan.fda.gov/~lrd/haccp.html>. Click on overview→→Click on HACCP: A State of the Art Approach to Food Safety and answer the questions below.

a.) Who was HACCP originally intended for?

b.) What did this original program focus on?

c.) What was the traditional system to ensure food safety and what was wrong with this system?

d.) What does HACCP stand for and how is it pronounced?

e.) List the seven principle of HACCP and briefly describe.

1.	
2.	
3.	
4.	
5.	
6.	
7.	

f.) What are three reasons we need HACCP?

g.) What are three advantages of HACCP?

Flow of Food

- The path food takes from receiving and storage through preparation and cooking, holding, serving, cooling, and reheating.



Purchasing and Receiving

- To be sure the food you serve is safe, you must _____



Choosing a Supplier

- Make sure suppliers are getting their products _____.
- Ask your suppliers if they have a _____ in place.
- Find out if your suppliers are trained in _____.
- _____ of the supplier's delivery trucks.
- Check shipments for _____.

Rejecting Shipments

- Set the _____.
- Tell the delivery person exactly what is wrong with the rejected product.
- _____ before throwing the product away.
- _____ on the invoice or receiving documents.

Inspecting Procedures

- _____ to inspect deliveries properly.
- _____ for shipments
- Inspect deliveries _____
- _____ with delivery date or use by date

Monitoring Time and Temperature

- Food must stay out of the _____
- If food is kept in the temperature danger zone for _____
- Time period begins when food is taken off the delivery trucks. It _____

General Thermometer Guidelines

- Wash, rinse, sanitize and air dry thermometers _____
- _____ regularly to ensure accuracy.
- Measure internal temperatures by inserting _____
- Wait for the _____ before recording

Receiving and Inspecting Food



Seafood



- Packed in self-draining crushed ice
- Received at _____
- Should meet the following standards
 - _____
 - Firm flesh
 - Pleasant _____ or seaweed
 - Bright red and moist gills
 - _____

Shellfish

Crustacea (shrimp, crab, lobster)
Mollusks (clams, oysters mussels)

- _____
- Must be bought only from suppliers listed in the _____
- Shellstock Identification Tags: _____
 - _____
 - Must keep tag on file for _____ after the last shellfish has been used

Fresh Meat and Poultry

- Delivered at _____
- Must be purchased from _____ or state department of agriculture
- Stamped with the abbreviations _____
- USDA stamp means _____

Meat

- Beef should be a _____
- _____ when fresh and properly exposed to air
- _____ in color with firm, white fat portions
- Poultry that is NOT acceptable
 - Purplish or greenish color
 - _____
 - _____ under the wings and around joints
 - _____

Eggs

- Purchase from _____
- Must be delivered in _____
- Shells should be clean, dry and free of cracks
- _____



Dairy Products

- Purchase _____ dairy products
- All milk and milk products should be _____
- Received at _____
- Butter and Cheese make sure there are _____

Fresh Produce

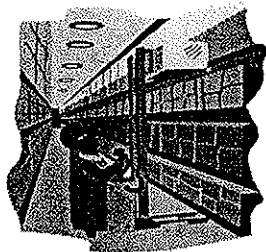
- No specific temperature is mandatory
- _____ and other cut produce _____
- _____ (exception leafy greens)
- Handle with care
- _____
- Delivered at _____



Dry and Canned Products

- Look for signs of contamination
 - _____
 - _____
 - Rust
 - _____
 - _____ canned foods you are _____

Keeping Food Safe in Storage



General Storage Guidelines

- Follow the "FIFO" method; _____
- Keep potentially hazardous food out of the temp. danger zone
- _____ of stored food and storage areas _____
- _____
- Keep all storage areas _____
- Clean dollies, carts, transporters and trays often
- Store food _____

Refrigerated Storage

- Internal temp. should be _____
- _____ food in refrigerator
- Do not _____
- Use _____
- Keep door closed
- _____
- Store raw food _____; cooked food should be stored above raw

Frozen Storage

- Temp _____
- Place frozen food deliveries in freezer as soon as inspected
- _____
- _____ food unless it has been cooked thoroughly
- FIFO
- Store food in _____

Dry Storage

- Temperature _____
- _____ 50-60%
- Store food _____ away from floor and wall
- Store in _____
- Keep area clean and dry
- Keep _____

Chemicals

- Never use empty food containers to store chemicals or vice versa
- _____
- In necessary to transfer store in sturdy containers _____



Protecting Food During Preparation



Time and Temperature Control

- Temp. Danger Zone 41°F-140°F: _____
_____ (70°F-125°F grows fastest)
- _____: never let food remain in the temp. danger zone for more than 4hrs.
- _____
- _____ guidelines for keeping track of temp. and time of food

Preventing Cross-Contamination

- Prepare raw foods _____
- _____ for each type of food product (ex. Cutting boards)
- _____ all work equipment and utensils after each task
- _____ used for wiping up spills
- Wear single use gloves
- Practice _____

Thawing Food Properly

- In refrigerator at 41°F or lower (_____)
- Submerge the frozen product under _____ potable water at a temperature of 70°F or lower (_____)
- Microwave only if food will be _____
- _____ as long as it reaches minimum internal temperature

Cooking Requirements for Specific Foods

- Poultry, Stuffing, Stuffed Meats & Casseroles = _____°F (15sec.)
- Pork = _____°F (15sec.)
- Beef = _____°F (15sec.)
- Ground Meats = _____°F (15sec.)
- Injected Meats = _____°F (15sec.)
- Game = _____°F (15sec.) / ground and stuffed follow guidelines above
- Ratites (ostrich, emu) = _____°F (15sec.)
- Fish = _____°F (15sec.)
- Eggs Immediate Service = _____°F (15sec.)
- Hold Eggs = _____°F (15sec.) Hold at _____°F
- Hold Cooked Vegetables _____°F or higher
- Tea = _____°F Never hold at room temp. for more than one day
- Microwave = _____°F or higher

Cooling Food

- _____
- 140°F-70°F within 2 hrs.
 - 70°F-41°F or lower in an additional 4 hrs.
 - _____
- One Stage Cooling
- _____
- _____

In the 2 stage cooling method if food has _____
 _____ it must be _____

Methods for Cooling Food

- Reduce the _____ of the food you are cooling
- Use _____ to bring food temperature down quickly
- Use _____ before placing food in the refrigerator
- _____ as it cools
- _____ as an ingredient (soups)
- Keep food in _____
- Always place pans on _____ in the cooler
- If you need to _____

Reheating Food

- _____
- Food must be _____ to an internal temperature of _____
- _____

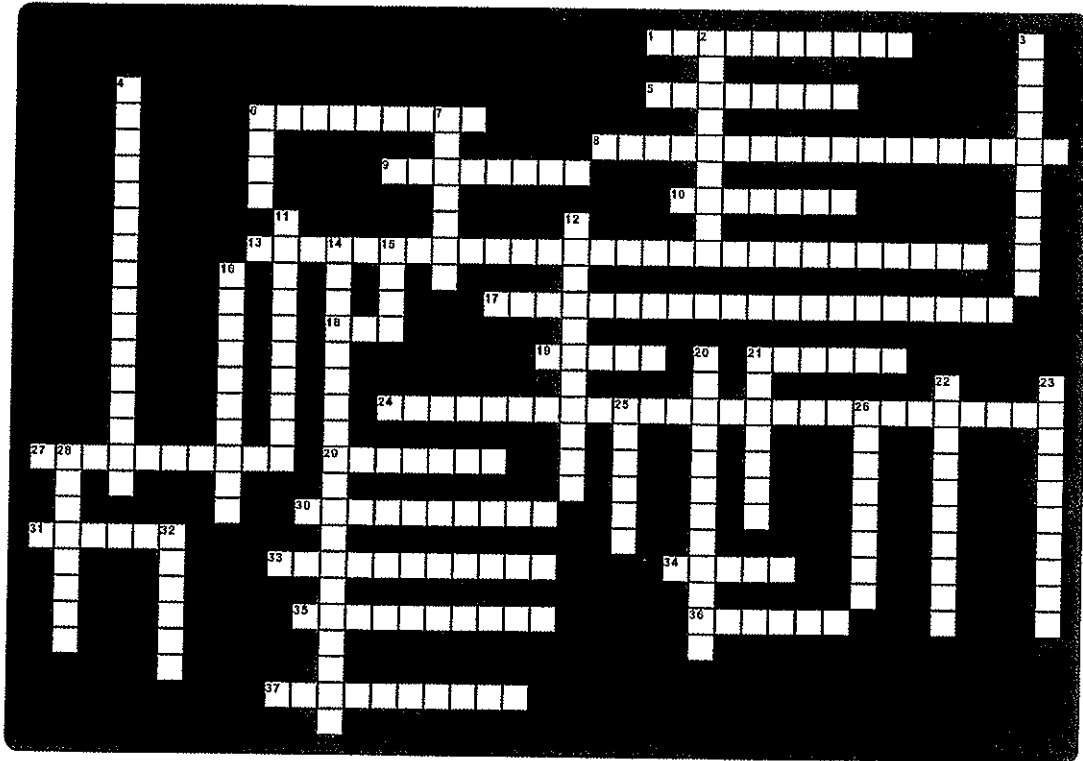
Holding Food for Service

- _____ that can keep food at and internal temperature of _____
- _____ to distribute heat
- _____ If it has not been held at 140°F or higher
- _____ with food being held
- Prepare food in _____
- Keep cold food at _____
- Keep food _____
- Check temperature _____

Serving Food Safely

- _____ of plates, cups, etc.
- _____ dishes when serving
- Flatware and utensils should be _____
- _____ with cooked or ready-to-eat food
- Use _____ to get ice
- _____ !!!!!!!

Safety and Sanitation/HACCP Applications



Across

- 1 - virus; found in water, ice, salads, cold cuts can cause jaundice
- 5 - a scrape that's considered to be a minor cut, such as a rug burn
- 6 - materials that are quick to burn
- 8 - contamination caused by the movement of chemicals or microorganisms from one place to another
- 9 - tiny single celled microorganisms that can make people very sick if they find their way into food
- 10 - placing food in a locations for later use
- 13 - emergency care that is performed on people who are unresponsive

Down

- 2 - microorganisms such as protozoa, roundworms and flat worms that live in or on a host to survive
- 3 - bacteria found in poultry products, meats, dairy products and protein foods
- 4 - used to remove an object blocking a choking victims airway
- 6 - "First in First Out" the system of rotating stock in which items that are stored first are used first
- 7 - An OSHA procedure that requires all necessary switches on electrical equipment to be locked out and tagged when they are malfunctioning
- 11 - healthy or clean and whole
- 12 - heating products at very high temperatures to destroy harmful bacteria

Across

17 - a step in the flow of food where contamination can be prevented or eliminated

18 - requires food service operations to track how they handle and dispose of hazardous materials such as cleaning products and pesticides

19 - microorganisms found in soil, plants, animals, water and in the air

21 - a source of danger

24 - the lowest temperature at which foods can be safely cooked or stored; below this temperature microorganisms can't be destroyed

27 - a deep cut or tear in the skin, such as a knife wound

29 - virus; found in water, raw vegetables, fresh fruit, salads and shellfish

30 - used on a grease fire to suffocate or smother the flames

31 - fire extinguisher used on electrical cords, switches and wiring

33 - Bacteria; protein salads, lettuce, raw vegetables milk and milk products

34 - Hazard Analysis Critical Control Point; the system used by food service establishments to help ensure food safety

35 - or adjusted; a food thermometer should be adjusted before each shift or each delivery, and if it is dropped

36 - Bacteria; found in raw ground beef, undercooked beef and fish from contaminated water

37 - the path food takes from receiving to disposal where hazards can be controlled and dangers minimized

Down

14 - contamination that occurs when raw foods, or the plants and animals from which they come are exposed to toxins

15 - enforces workplace standards

16 - your best course of action when it comes to a fire

20 - food that contains harmful microorganisms or substances that make food unfit to eat

21 - the process in which food is prepared ahead of time, then placed in an appropriate location and kept warm until someone orders

22 - a procedure that involves reducing the number of microorganisms of the surface

23 - products that can spoil quickly, even when stored correctly

25 - harmful organisms or substance

26 - a deep hole in the skin, often caused by a pointed object, such as an ice pick

28 - a wound in which a portion of the skin is partially or completely torn off, such as a severed finger

32 - fire extinguisher used on wood, paper, cloth and plastic